

$$P_m = \frac{c}{1 + \frac{1}{\eta_m}} \quad (\text{A4})$$

Let  $R$  be the ratio of the regulated price to the monopoly price. Thus,

$$P = RP_m = \frac{Rc}{1 + \frac{1}{\eta_m}} \quad (\text{A5})$$

Now, substituting (A5) into (A3) gives the change in profit due to an increase in the allowed price:

$$\frac{d\pi}{dP} = (1 - \eta \frac{(1 - R) + \frac{1}{\eta_m}}{R}) Q \quad (\text{A6})$$

**Table 1**  
**Change in Profit over Change in Price**  
**(per subscriber)**

(a)

$$R = .83$$

		$\eta_m$		
		-1.20	-1.50	-2.00
$\eta/\eta_m$	1.00	0.041	0.102	0.205
	0.75	0.281	0.327	0.404
	0.50	0.520	0.551	0.602

(b)

$$R = .9$$

		$\eta_m$		
		-1.20	-1.50	-2.00
$\eta/\eta_m$	1.00	0.022	0.056	0.111
	0.90	0.120	0.150	0.200
	0.80	0.218	0.244	0.289

(c)

$$R = .95$$

		$\eta_m$		
		-1.20	-1.50	-2.00
$\eta/\eta_m$	1.00	0.011	0.026	0.053
	0.95	0.060	0.075	0.100
	0.90	0.109	0.124	0.147

**Table 2**

**Cost of Vertical Affiliation Under Proposed Rules**

Network	Subs. <sup>a</sup> MSO (millions)	Sub. Fee <sup>b</sup>	Cost Ratio			
			0.022	0.120	0.327	
CNN						
TCI	8.90	\$0.307	0.360	1.965	5.356	
Time-	6.66		0.270	1.471	4.008	
Warner						
Cont.	2.83		0.115	0.625	1.703	
Cable.						
Comcast	2.59		0.105	0.572	1.559	
TNT						
TCI	8.90	\$0.468	0.549	2.996	8.165	
Time-	6.66		0.411	2.242	6.110	
Warner						
Cont.	2.83		0.175	0.953	2.596	
Cable.						
Comcast	2.59		0.160	0.872	2.376	
Cartoon Network						
TCI	1.23	\$0.101	0.016	0.089	0.243	
Time-	0.92		0.012	0.067	0.182	
Warner						
Cont.	0.39		0.005	0.028	0.077	
Cable.						
Comcast	0.36		0.005	0.026	0.071	
TOTAL						
TCI			0.926	5.051	13.764	
Time-			0.693	3.780	10.300	
Warner						
Cont.			0.294	1.606	4.377	
Cable.						
Comcast			0.269	1.470	4.005	

## Table 2 (Notes)

### Cost of Vertical Affiliation Under Proposed Rules

Entries represent estimated annual cost (in millions of dollars) to cable operators of being affiliated with Turner Broadcasting under the proposed rules. Estimates based on the assumption that affiliation reduces the price a cable operator can charge by 50% of the estimated subscription price.

<sup>a</sup> Source: 1993 *Cable and Television Factbook*, Cable Volume No. 61 (Washington, D.C.: Warren Publishing).

<sup>b</sup> Estimated as total monthly subscriber fees divided by total subscribers. Total monthly subscriber fees is 1/12 of 1994 estimated subscriber fees from Paul Kagan Associates, *Cable TV Programming*, No. 193, May 23, 1994. Number of subscribers provided by Turner Broadcasting.



## **Qualifications of Professor Michael Salinger**

I am an Associate Professor of Economics at the Boston University School of Management, where I have been teaching since September, 1990. Prior to that I was first an Associate Professor of Business Economics at the Columbia University Graduate School of Business. While at Columbia, I took a one year leave of absence to work as an economist at the Federal Trade Commission. My curriculum vitae is attached.

My primary area of expertise in economics is industrial organization. One of my main research interests over the past decade has been the competitive effects of vertical integration. As part of that research effort, I studied the effects of vertical integration between cable operators and pay cable networks. In 1989, shortly after Time and Warner announced that Time planned to acquire Warner Communications, Inc., I testified about my findings to the Senate Commerce Committee.

Since then, I have studied a number of aspects of the cable television industry. In a joint paper with Dr. Robin Prager, I studied the effects of cable deregulation. I have also completed a theoretical analysis of bundling that offers an explanation for why basic cable television service is sold as a bundle. In addition to this research, I have been retained twice by the Federal Trade Commission to consult on the competitive effects of mergers in the cable industry. In 1993, I submitted written testimony to the Copyright Royalty Tribunal concerning alternative procedures for allocating copyright payments paid by cable operators for the carriage of distant broadcast signals to different classes of programming.

I have been retained by the law firm Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo (Mintz, Levin) to analyze the treatment of affiliate transactions in the FCC's Notice of Proposed Rulemaking In the Matter of Implementation of Sections of the Cable Television Consumer

Protection and Competition Act of 1992: Rate Regulation (MM Docket No. 93-215). Mintz, Levin represents Turner Broadcasting in these proceedings. My findings are discussed in two companion reports entitled "The Effect of a 'Prevailing Price' Rule for Affiliate Transactions under Price Regulation" and "The Likely Effect of the FCC's Proposed Treatment of Affiliated Transactions Under Price Regulation."

## Curriculum Vitae of Michael A. Salinger

**Address:** Boston University, School of Management, 704 Commonwealth Ave.,  
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**Telephone:** (617) 353-4408

**Education:** Ph.D. in Economics, Massachusetts Institute of Technology, 1982

B.A., *magna cum laude* and with Honors in Economics, Yale University, 1978

### Employment:

July, 1990 - present, Associate Professor of Finance and Economics, Boston University School of Management.

July, 1982 - June, 1990, Associate Professor of Economics and Finance, Graduate School of Business, Columbia University (Assistant Professor, 7/82 - 6/87).

May, 1985 - August, 1986, (while on leave from Columbia) Economist, United States Federal Trade Commission, Bureau of Economics, Antitrust Division.

### Publications:

"A Graphical Analysis of Bundling," *The Journal of Business*, forthcoming.

"Value Event Studies," *Review of Economics and Statistics*, vol. 74, November, 1992, pp. 671-677.

"Standard Errors in Event Studies," *Journal of Financial and Quantitative Analysis*, vol. 27, March, 1992, pp. 39-53.

"Vertical Mergers in Multi-Product Industries and Edgeworth's Paradox of Taxation," *Journal of Industrial Economics*, vol. 40, September, 1991, pp. 545-556.

"The Concentration-Margins Relationship Reconsidered," *Micro-Brookings Papers on Economic Activity*, 1990, pp. 287-321.

"Stock Market Margin Requirements and Volatility: Implications for Regulation of Stock Index Futures," *Journal of Financial Services Research*, Vol. 3, December, 1989, pp. 121-138.

"The Meaning of 'Upstream' and 'Downstream' and the Implications for Modeling Vertical Mergers," *Journal of Industrial Economics*, Vol. 37, June, 1989, pp. 373-387.

"Vertical Mergers and Market Foreclosure," *Quarterly Journal of Economics*, Vol. 103, May, 1988, pp. 345-356.



"Tobin's q, Unionization, and the Concentration-Profits Relationship," *Rand Journal of Economics*, vol. 15, Summer, 1984, pp. 159-170.

"Tax Reform and Corporate Investment: A Microeconomic Simulation Study," (with L. Summers) in M. Feldstein, ed., *Behavioral Simulation Methods in Tax Policy Analysis*, University of Chicago Press, 1984, pp. 247-281.

"Testimony of Michael A. Salinger before the Senate Commerce, Science, and Transportation Committee, Subcommittee on Communications," *Media Ownership: Diversity and Concentration*, U.S. Senate Hearings 101-357, 1989, pp. 97-107.

"Commentary," *The Review of Futures Markets*, vol. 10, no. 2, 1991, pp. 398-402.

"Comment," in J. Coffee, L. Lowenstein, and S. Rose-Ackerman, eds., *Knights, Raiders, and Targets: The Impact of Hostile Takeovers*, Oxford University Press, 1988, pp. 71-73.

### **Major Consulting Activities**

Testified as to damages on behalf of Record Club of America in a breach of contract suit against United Artists. Testimony concerned distinction between marginal and average cost and econometric projection of sales. (1988)

Written testimony on behalf of Devotional Claimants before the Copyright Royalty Tribunal. Testimony concerned appropriate procedures for allocating royalties paid by cable operators among different classes of programs on retransmitted broadcast signals. (1993)

Affidavit concerning class certification in a class action suit against bottlers of Coke and Pepsi. Affidavit argued that a conspiracy to raise the price of colas sold on promotion to grocery stores affected soft drink prices in general. (1989)

Deposition testimony for Long Lake Energy Corp. in monopolization suit against Niagara Mohawk Corporation. Testimony concerned appropriate market definition. (1991)

Twice retained by Federal Trade Commission as potential expert in merger cases in the cable television industry.

**Working Papers:**

- "The Future of Local Telecommunications Networks: Will Competition Really Emerge?"
- "When Do Peeping Toms See Something (Statistically) Significant?"
- "Competition between Bundles and Components"
- "The Effects of Cable Television Deregulation on Prices and Welfare" (joint with Robin Prager)
- "Imperfect Capital Markets and Productivity Growth" (joint with Bruce Greenwald and Joseph Stiglitz)
- "Horizontal and Vertical Integration Among Containerboard/Box Producers"
- "A Test of Successive Monopoly and Foreclosure Effects: Vertical Integration between Cable Systems and Pay Services"

**Other Professional Activities:**

Co-Director, Boston University Telecommunications Policy Project

Paper presentations (last five years): Charles River Associates Conference on Antitrust in Today's Economy; Winter Meetings of the Econometric Society (1989, 1990, and 1992); Telecommunications Policy Research Conference (1989,1991,1992); American Enterprise Institute Conference on Regulation of Network Industries; Boston University; Chicago; Columbia; Connecticut; Dartmouth; Federal Trade Commission; GTE Labs; Harvard; MIT; NBER; New York University; and Northwestern.

Referee for *American Economic Review*, *Economic Development and Cultural Change*, *Economic Inquiry*, *International Economic Review*, *International Journal of Industrial Organization*, *Journal of the American Statistical Association*, *Journal of Business*, *Journal of Empirical Finance*, *Journal of Financial and Quantitative Analysis*, *Journal of Futures Markets*, *Journal of Industrial Economics*, *Journal of Law and Economics*, *Journal of Law, Economics, and Organization*, *Journal of Money, Credit, and Banking*, *Journal of Public Economics*, National Science Foundation, *Quarterly Journal of Economics*, *Quarterly Review of Economics and Business*, *The Rand Journal of Economics*, *The Review of Economic Studies* and *The Review of Economics and Statistics*.

Professional Memberships: American Economic Association